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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
Office Action Summary	10/578,270	SAITO ET AL.	
	Examiner	Art Unit	
	YAIMA CAMPOS	2185	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>11 December 2008</u>.

2a) ☒ This action is FINAL.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-13</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-13</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>1/8/09</u>

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   As per the instant Application having Application number 10/578,270, the examiner

acknowledges the applicant's submission of the amendment dated 12/11/2008. At this point,

claims 1-7 have been amended, and claims 9-13 have been added. Claims 1-13 are pending.

ACKNOWLEDGEMENT OF REFERENCES CITED BY APPLICANT

2.   As required by M.P.E.P. 609(C), the applicant's submissions of the Information

Disclosure Statement dated 1/8/2009 is acknowledged by the examiner and the cited references

have been considered in the examination of the claims now pending. As required by M.P.E.P

609 C(2), a copy of the PTOL-1449 initialed and dated by the examiner is attached to the instant

office action.

OBJECTIONS

3.   Claim 11 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 4.

When two claims in an application are duplicates or else are so close in content that they both

cover the same thing, despite a slight difference in wording, it is proper after allowing one claim

to object to the other as being a substantial duplicate of the allowed claim. See MPEP

§ 706.03(k).

REJECTIONS NOT BASED ON PRIOR ART

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

5.   Claims 6-8 and 13 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

6.   Claims 6-8 and 13 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

7.   As per claims 6-8 and 13, these claims recite the limitation of "a computer-readable

medium"; wherein on (Paragraphs 0147-0149) of the Specification, Applicant has provided

evidence that Applicant intends the medium to include signal bearing media (which

comprises non-tangible media) and well as tangible storage media. Therefore, claims 6-8

and 13 are directed to non-statutory subject matter as these claims recite signal bearing media to

transfer signals which are defined as physical characteristics of a form of energy, such as

frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and

as such are nonstatutory phenomena. Moreover, it does not appear that a claim reciting a signal

encoded with function descriptive material falls within any of the categories of patentable subject

matter set forth 35 U.S.C. 101. Applicant might consider amending the claims to recite

"computer-readable storage medium" in order to overcome this rejection.

REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

9.   Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awada et al.

(US 2002/0026566) in view of Haneda et al. (US 6,094,693).

10.   As per claim 1. A file recording apparatus for recording data onto a recording medium

which is written in clusters and erased in blocks each composed of a predetermined number of

contiguous clusters, the file recording apparatus comprising: [data of different types is written

in non-volatile devices 1 and 2 wherein types A and B are illustrated, which are

continuously written (fig. 3 and related text; pars. 0051-0056; 0141)]

a receiving unit configured to receive a request for writing data of a specific one of a plurality of

files onto the recording medium; [FMEM-control receives write requests for specific data of

types A or B from control board (figs. 3 and 4 and related text; pars. 0052-0056, 0082-

0085)]

a plurality of file buffers each for a different one of the plurality of files; [buffer-memory

module 36 (fig. 4) having a plurality of buffers, one for each data type (pars. 0059-0061,

0089, 0167-0168, 0175; fig. 3 and related text)]

a data accumulating unit configured to accumulate the data requested to be written, in one of the

plurality of file buffers corresponding to the specific one of the plurality of files; [data of each

type is accumulated in corresponding buffer (pars. 0059-0061, 0089, 0167-0168, 0175; fig. 3

and related text)]

a judging unit configured to judge whether data having been accumulated by the data

accumulating unit is no smaller than a block size; and [Awada discloses writing data from a

buffer to a flash device, wherein a different buffer is used for each data type and a plurality

of flash devices are used (pars. 0059-0061; 0175-0176), wherein writing from buffer to flash

in block units and judging whether the amount of data in the buffer is not smaller than a

block size is within the scope of the disclosure (see pars. 0012-0013 and 0022)]

a writing unit configured, if the judging unit judges affirmatively, to extract a block of data from

the accumulated data and to write the extracted data into a free block of the recording medium

[FMEM-write process writes data from corresponding evacuation buffers to non-volatile

memory devices (figs. 3 and 4 and related text; pars. 0059, 0085) wherein writing from

buffer to flash in block units is within the scope of the disclosure (see pars. 0012-0013 and

0022)].

   To further detail Awada, Haneda discloses [writing file data such that only one file is

written contiguously in the same erasure unit and may be mapped to encompass more than

one erasure unit (figs. 4 and 9 related text; col. 13, lines 36-49) wherein data corresponding

to each file data is written block by block, until each block is full (figs. 4 and 9 related text;

col. 13, lines 36-49)].

   Awada and Haneda are analogous art in that they are of the same field of endeavor, that

is, a system and/or method of memory control.

   Haneda suggests that it would have been desirable to incorporate the writing file data

such that only one file is written contiguously in the same erasure unit and may be mapped to

encompass more than one erasure unit into the system of Awada because this would allow for

[high speed writing and erasure (col. 7, lines 46-53)].

Therefore, it would have been obvious to combine Awada with Haneda for the benefit of creating a system/method of recording file data to obtain the invention as specified in claim 1.

11.   As per claim 2. The file recording apparatus according to claim 1, wherein the judging unit judges affirmatively if data having been accumulated in a specific one of the plurality of file buffers to which the data accumulating unit most recently accumulated data is no smaller than the block size, and the writing unit extracts a block of data from a top of the specific one of the plurality of file buffers, and writes the extracted data to the free block of the recording medium [Awada discloses accumulating data in buffer and writing data from a buffer to a flash device, wherein a different buffer is used for each data type and a plurality of flash devices are used (pars. 0059-0061; 0175-0176), wherein writing from buffer to flash in block units and judging whether the amount of data in the buffer is not smaller than a block size is within the scope of the disclosure (see pars. 0012-0013 and 0022)].

12.   As per claim 3. The file recording apparatus according to claim 1, wherein the judging unit judges affirmatively when a total of quotients each calculated by dividing a size of data accumulated in a respective one of the plurality of file buffers by a cluster size is no smaller than the predetermined number, and the writing unit extracts data from the respective one of the plurality of file buffers cluster by cluster until the predetermined number of clusters is reached, and writes the extracted data to the free block of the recording medium [Awada discloses accumulating data in buffer and writing data from a buffer to a flash device, wherein a different buffer is used for each data type and a plurality of flash devices are used (pars. 0059-0061; 0175-0176), wherein data of each buffer is written to flash as long as there is

data to be written, and writing in byte, block or any other unit of data is within the scope of

the disclosure (pars. 0167, 0012-0013, 0022, 0175-0176)].

13.   As per claim 4. The file recording apparatus according to claim 1, further comprising: an

erasing unit configured to erase the free block before the writing unit writes the extracted data to

the free block [Awada discloses flash memory devices 1 and 2 are erased before writing

(pars. 0055, 0065,)].

14.   As per claim 5. A control method for a file recording apparatus that includes a plurality

of file buffers each for a different one of a plurality of files and that records data onto a recording

medium, the recording medium being written in clusters and erased in blocks each composed of

a predetermined number of contiguous clusters, the method comprising: a receiving step of

receiving a request for writing data of a specific one of a plurality of files onto the recording

medium; a data accumulating step of accumulating the data requested to be written, in one of the

plurality of file buffers corresponding to the specific one of the plurality of files; a judging step

of judging whether data having been accumulated in the data accumulating step is no smaller

than a block size; and a writing step of writing, if the judging step results in the affirmative, to

extract a block of data from the accumulated data and to write the extracted data into a free block

of the recording medium [The rationale in the rejection to claim 1 is herein incorporated].

15.   As per claim 6. A program recorded on a computer-readable medium for execution by a

file recording apparatus that includes a plurality of file buffers each for a different one of a

plurality of files and that records data onto a recording medium, the recording medium being

written in clusters and erased in blocks each composed of a predetermined number of contiguous

clusters, the program comprising code configured to cause the file recording apparatus to

perform: a receiving step of receiving a request for writing data of a specific one of a plurality of files onto the recording medium; a data accumulating step of accumulating the data requested to be written, in one of the plurality of file buffers corresponding to the specific one of the plurality of files; a judging step of judging whether data having been accumulated in the data accumulating step is no smaller than a block size; and a writing step of writing, if the judging step results in the affirmative, to extract a block of data from the accumulated data and to write the extracted data into a free block of the recording medium [The rationale in the rejection to claim 1 is herein incorporated].

16.   As per claim 7, Awada disclose A program recorded on a computer-readable medium for execution by a file recording apparatus that includes a driver data buffer and that records data onto a recording medium, the recording medium being written in clusters and erased in blocks each composed of a predetermined number of contiguous clusters, the program comprising code configured to cause the file recording apparatus to perform: [Awada discloses data of different types is accumulated in different buffers and written in non-volatile devices 1 and 2 wherein types A and B are illustrated (fig. 3 and related text; pars. 0051-0056; 0141) wherein non-volatile memories erased in units of blocks and written in bytes, blocks or any other suitable unit (pars. 0167, 0012-0013, 0022, 0175-0176)]

a receiving step of receiving a write request that specifies a write address on the recording medium at which data is requested to be written; [write requests for data write having address/pointer (pars. 0130-0140; 0184)]

a first judging step of judging, if the driver data buffer is not empty, whether the write address specified for the data requested to be written is contiguous to a write address specified for data

stored on the driver data buffer; [continuous incoming data of each type is stored in

corresponding data buffer (pars. 0141; 0175-0176)]

a data accumulating step of accumulating, if the first judging step results in the affirmative, in the

driver data buffer the data requested to be written; [data of each type is accumulated in

corresponding buffer (pars. 0059-0061, 0089, 0167-0168, 0175; fig. 3 and related text)]

a second judging step of judging whether a write address specified for data accumulated in the

driver data buffer falls on a block boundary of the recording medium; and a write step of writing,

if the second judging step results in the affirmative, a part of the accumulated data from a top of

the driver data buffer up to a point corresponding to the block boundary, onto the recording

medium [Awada discloses accumulating data in buffer and writing data from a buffer to a

flash device, wherein a different buffer is used for each data type and a plurality of flash

devices are used (pars. 0059-0061; 0175-0176), wherein data of each buffer is written to

flash as long as there is data to be written, and writing in byte, block or any other unit of

data is within the scope of the disclosure (pars. 0167, 0012-0013, 0022, 0175-0176)].

      To further detail Awada, Haneda discloses [writing file data such that only one file is

written contiguously in the same erasure unit and may be mapped to encompass more than

one erasure unit wherein data corresponding to each file data is written block by block,

until each block is full (figs. 4 and 9 related text; col. 13, lines 36-49)].

      Awada and Haneda are analogous art in that they are of the same field of endeavor, that

is, a system and/or method of memory control.

      Haneda suggests that it would have been desirable to incorporate the writing file data

such that only one file is written contiguously in the same erasure unit and may be mapped to

encompass more than one erasure unit into the system of Awada because this would allow for

[high speed writing and erasure (col. 7, lines 46-53)].

17.   As per claim 8. The program according to claim 7, wherein the program comprises a

filter driver of the recording medium [Awada discloses data evacuation buffers are allocated

to respective data types and incoming data is filtered to the corresponding buffer (par.

0175)].

18.   As per claim 9. (New) A file recording apparatus for recording data onto a recording

medium which is written in clusters and erased in blocks each composed of a predetermined

number of contiguous clusters, the file recording apparatus comprising: a receiving unit

configured to receive a request for writing data of a specific one of a plurality of files onto the

recording medium; a plurality of file buffers each for a different one of the plurality of files; a

data accumulating unit configured to accumulate the data requested to be written, in one of the

plurality of file buffers corresponding to the specific one of the plurality of files; a judging unit

configured to judge whether a total size of data of the plurality of files having been accumulated

in the plurality of file buffers by the data accumulating unit is no smaller than a block size; and a

writing unit configured, if the judging unit judges affirmatively, to extract a block of data from

the accumulated data of the plurality of files and to write the extracted data into a free block of

the recording medium [The rationale in the rejection to claim 1 is herein incorporated].

19.   As per claim 10. (New) The file recording apparatus according to Claim 1, wherein the

judging unit judges that the total size of data accumulated in the plurality of file buffers is no

smaller than the block size, when a total of quotients each calculated by dividing a size of data

accumulated in a respective one of the plurality of file buffers by a cluster size is no smaller than

the predetermined number, and the writing unit extracts data from the respective one of plurality

of file buffers cluster by cluster until the predetermined number of clusters is reached, and writes

the extracted data to the free block of the recording medium [The rationale in the rejection to

claim 3 is herein incorporated].

20.   As per claim 11. (New) The file recording apparatus according to Claim 1, further

comprising: an erasing unit configured to erase the free block before the writing unit writes the

extracted data to the free block [The rationale in the rejection to clam 4 is herein

incorporated].

21.   As per claim 12. (New) A control method for a file recording apparatus that includes a

plurality of file buffers each for a different one of a plurality of files and that records data onto a

recording medium, the recording medium being written in clusters and erased in blocks each

composed of a predetermined number of contiguous clusters, the method comprising: a receiving

step of receiving a request for writing data of a specific one of a plurality of files onto the

recording medium; a data accumulating step of accumulating the data requested to be written, in

one of the plurality of file buffers corresponding to the specific one of the plurality of files; a

judging step of judging whether a total size of data of the plurality of files having been

accumulated in the plurality of file buffers in the data accumulating step is no smaller than a

block size; and a writing step of writing, if the judging step results in the affirmative, to extract a

block of data from the accumulated data of the plurality of files and to write the extracted data

into a free block of the recording medium [The rationale in the rejection to claims 1 and 5 is

herein incorporated].

22.   As per claim 13. (New) A program recorded on a computer-readable medium for

execution by a file recording apparatus that includes a plurality of file buffers each for a different

one of a plurality of files and that records data onto a recording medium, the recording medium

being written in clusters and erased in blocks each composed of a predetermined number of

contiguous clusters, the program comprising code configured to cause the file recording

apparatus to perform: a receiving step of receiving a request for writing data of a specific one of

a plurality of files onto the recording medium; a data accumulating step of accumulating the data

requested to be written, in one of the plurality of file buffers corresponding to the specific one of

the plurality of files; a judging step of judging whether a total size of data of the plurality of files

having been accumulated in the plurality of file buffers in the data accumulating step is no

smaller than a block size; and a writing step of writing, if the judging step results in the

affirmative, to extract a block of data from the accumulated data of the plurality of files and to

write the extracted data into a free block of the recording medium [The rationale in the

rejection to claims 1 and 6 is herein incorporated].

ACKNOWLEDGMENT OF ISSUES RAISED BY THE APPLICANT

Response to Amendment

23.   Applicant's arguments filed on 12/11/2008 have been fully considered but they are not

deemed persuasive.

24.   As required by M.P.E.P. § 707.07(f), a response to these arguments appears below.

ARGUMENTS CONCERNING PRIOR ART REJECTIONS

25.   In view of the following discussion, Examiner would like to emphasize that claims must

be given the broadest reasonable interpretation during examination and limitations appearing in

the specification but not recited in the claim are not read into the claim (See M.P.E.P. 2111 [R-

1]).

26.   With respect to claim 1, Applicant remarks that the combination of Awada and Haneda

does not disclose a "judging unit configured to judge whether data having been accumulated by

the data accumulating unit is no smaller than a block size."

        In response, these remarks have been fully considered, but are not deemed persuasive

since Awada discloses [writing data from a buffer to a flash device, wherein a different

buffer is used for each data type and a plurality of flash devices are used (pars. 0059-0061;

0175-0176), wherein data is written from buffer to flash in block units as "*a buffer having

one-sector's worth of capacity* is provided with respect to each of the data types, and block

data is written in the flash **EEPROM FMEM**1 *when the buffer becomes full*" (see pars.

0012-0013 and 0022)]; thus providing a condition that a block-size buffer be full (or that the

amount of data in the buffer not be smaller than a block size) in order to write from the buffer to

the flash device; thus, Awada must judge whether the amount of data in the buffer is not smaller

than a block size. Furthermore, Applicant should note that since Awada discloses writing data in

block units (or sectors) to flash memory, Awada must first determine whether a block has been

accumulated in buffers in order to write to flash.

27.   Applicant remarks that in Awada, "due to the above deficiency… before each data write

operation, any data stored on a block (onto which the data write is to be performed) needs to be

read and re-written, which is a wasteful operation that will occur frequently. Thus, the recording

apparatus in Awada fails to effectively write file data. In contrast, the present invention ensures

that the recording of files is effectively performed." However, these remarks are not deemed

persuasive since it is deemed that the combination of Awada and Haneda discloses all of the

limitations required by the claims and limitations appearing in the Specification but not being

claimed are not read into the claims.

28.   With respect to claim 7, Applicant argues that the combination of Awada and Haneda

fails to disclose "the first judging step," "second judging step" and "write step".

In response, these remarks have been fully considered, but are not deemed persuasive.

The combination of Awada and Haneda discloses "the first judging step" "second judging

step" and "write step" as follows:

a first judging step of judging, if the driver data buffer is not empty, [Awada discloses

" evacuation-check flag" (pars. 0167-0172) to check/judge whether there is data in buffer,

wherein one state of the flag is "no data evacuated in buffer" (par. 0170)] whether the write

address specified for the data requested to be written is contiguous to a write address specified

for data stored on the driver data buffer; [Awada discloses for each write, data is accumulated

in buffers, wherein one buffer is used for each data type; thus when there is data evacuated

in buffer, and a write command is received "incoming data is stored in a corresponding

data-evacuation buffer" (pars. 0175-0176) and each buffer is used continuously for each

data type (par. 0141)]; thus, Awada must check whether the incoming write data is

continuously of the same type as the data stored in the designated buffer for the data type. Note

that Awada switches writing from one buffer to another when the data is not continuously of the

same type. Haneda further discloses [writing file data such that only one file is written

contiguously in the same erasure unit and may be mapped to encompass more than one erasure unit wherein data corresponding to each file data is written block by block, until each block is full (figs. 4 and 9 related text; col. 13, lines 36-49)]; wherein Applicant should note that in order to write file data continuously in the same block or erasure unit and not permit data of any other file to be written in the same erasure unit, the system/method as disclosed by Haneda must check whether the address of the data to be written is continuous for each data block.

      a data accumulating step of accumulating, if the first judging step results in the affirmative, in the driver data buffer the data requested to be written; [data of each type is accumulated in corresponding buffer (pars. 0059-0061, 0089, 0167-0168, 0175; fig. 3 and related text)]

      a second judging step of judging whether a write address specified for data accumulated in the driver data buffer falls on a block boundary of the recording medium; and a write step of writing, if the second judging step results in the affirmative, a part of the accumulated data from a top of the driver data buffer up to a point corresponding to the block boundary, onto the recording medium [Awada discloses accumulating data in buffer and writing data from a buffer to a flash device, wherein a different buffer is used for each data type and a plurality of flash devices are used (pars. 0059-0061; 0175-0176), wherein data of each buffer is written to flash as long as there is data to be written, and writing in byte, block or any other unit of data is within the scope of the disclosure (pars. 0167-0168, 0012-0013, 0022, 0175-0176); note that in Awada, the unit of writing may be selected]. Further, Awada discloses an embodiment in which data is written from buffer to flash in block-units, wherein,

when writing from buffer to flash in units of blocks (or sectors); there must be a check made to judge whether a whole block has been accumulated in buffer. Refer to the following [writing data from a buffer to a flash device, wherein a different buffer is used for each data type and a plurality of flash devices are used (pars. 0059-0061; 0175-0176), wherein data is written from buffer to flash in block units as "*a buffer having one-sector's worth of capacity is provided with respect to each of the data types, and block data is written in the flash EEPROM FMEM1 when the buffer becomes full*" (see pars. 0012-0013 and 0022)]; thus providing a condition that a block-size buffer be full (or that the amount of data in the buffer not be smaller than a block size) in order to write from the buffer to the flash device; thus, Awada must judge whether the amount of data in the buffer is not smaller than a block size.

It would have been obvious to modify the system/method of Awada wherein a data buffer is provided for data of each type and data of the same type is continuously written in each buffer, to further explicitly judge whether the address of data to be written is continuous to the data written in an erasure unit or block in order to write data of the same file continuously in the same erasure unit and not permit data of any other erasure unit to be written in the same block since this would allow for [high speed writing and erasure (par. 075)].

29.   Regarding all other Claims not specifically traversed above and whose rejections were upheld, the Applicant contends that the listed claims are allowable by virtue of their dependence on other allowable claims. As this dependence is the sole rationale put forth for the allowability of said dependent claims, the Applicant is directed to the Examiner's remarks above. Additionally, any other arguments the Applicant made that were not specifically addressed in

this Office Action appeared to directly rely on an argument presented elsewhere in the

Applicant's response that was traversed, rendered moot or found persuasive above.

30.   All arguments by the applicant are believed to be covered in the body of the office action;

thus, this action constitutes a complete response to the issues raised in the remarks dated January

22, 2007.

CLOSING COMMENTS

Conclusion

31.   THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Examiner's Note

32.   Examiner has cited particular columns and line numbers in the references as applied to

the claims above for the convenience of the applicant. Although the specified citations are

representative of the teachings in the art and are applied to the specific limitations within the

individual claim, other passages and figures may apply as well. It is respectfully requested from

the applicant, in preparing the responses, to fully consider the references in entirety as potentially

teaching all or part of the claimed invention, as well as the context of the passage as taught by

the prior art or disclosed by the examiner.

a. STATUS OF CLAIMS IN THE APPLICATION

33.   The following is a summary of the treatment and status of all claims in the application as

recommended by M.P.E.P. 707.07(i):

a(1) CLAIMS REJECTED IN THE APPLICATION

34.   Per the instant office action, claims 1-13 have received an action on the merits and are

subject to a final rejection.

b. DIRECTION OF FUTURE CORRESPONDENCES

35.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Yaima Campos whose telephone number is (571) 272-1232. The

examiner can normally be reached on Monday to Friday 8:30 AM to 5:00 PM.

36.   If attempts to reach the above noted Examiner by telephone are unsuccessful, the

Examiner's supervisor, Mr. Sanjiv Shah, can be reached at the following telephone number: Area

Code (571) 272-4098.

The fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300. Information regarding the status of an application may be obtained

from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For more

information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions

on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-

9197 (toll-free).

February 19, 2009   /Yaima Campos/
                                                     Examiner, Art Unit 2185

/Sanjiv Shah/
Supervisory Patent Examiner, Art Unit 2185